

WHAT IS CLAIMED IS:

1. A hydraulically driven vehicle, comprising:
 - a first transaxle apparatus disposed at one of front and rear portions of said vehicle;
 - a first axle supported by said first transaxle apparatus;
 - a first hydraulic motor integrally assembled in said first transaxle apparatus so as to drive said first axle;
 - a second transaxle apparatus disposed at the other of front and rear portions of said vehicle;
 - a second axle supported by said second transaxle apparatus;
 - a second hydraulic motor integrally assembled in said second transaxle apparatus so as to drive said second axle; and
 - a common variable displacement hydraulic pump drivingly connected to an engine and fluidly connected to said first and second hydraulic motors.
2. The vehicle as set forth in claim 1, wherein said first and second hydraulic motors are incorporated in said respective first and second transaxle apparatuses.
3. The vehicle as set forth in claim 1, wherein said first and second transaxle apparatuses are identical with each other in structure.
4. The vehicle as set forth in claim 1, wherein said vehicle is a riding lawn mower.
5. The vehicle as set forth in claim 1, further comprising:
 - a working device equipped at either front or rear end portion of said vehicle;
 - a transmission element for drivingly connecting said engine to said working device; and
 - a pair of axles having different lengths supported by said first transaxle apparatus, wherein said transmission element is allowed to contact a longer axle of said pair of axles.
6. The vehicle as set forth in claim 1, wherein first and second transaxle apparatuses are identical with each other in shape, and distributed into one side and the other in a lateral direction of said vehicle.

7. The vehicle as set forth in claim 1, wherein said first hydraulic motor of said first transaxle apparatus and said second hydraulic motor of said second transaxle apparatus are fluidly connected to said common hydraulic pump in series.
8. The vehicle as set forth in claim 1, further comprising:
a differential gearing differentially connecting a pair of axles serving as said first axle of said first transaxle apparatus to each other; and
another differential gearing differentially connecting a pair of axles serving as said second axle of said second transaxle apparatus to each other.
9. The vehicle as set forth in claim 7, wherein each of said differential gearings is equipped with a lock system which restricts differential rotation of said first axles or of said second axles.
10. The vehicle as set forth in claim 1, further comprising:
a switching valve interposed on a connection way between said first hydraulic motor of said first transaxle apparatus and said common hydraulic pump so as to control a supply of fluid to said first hydraulic motor.
11. The vehicle as set forth in claim 1, wherein a fluid sump in said first transaxle apparatus, a fluid sump in said second transaxle apparatus, and a fluid sump in said hydraulic pump communicate with one another so as to allow fluid to flow among said first and second transaxle apparatuses and said hydraulic pump.
12. A four-wheel-drive articulate vehicle, comprising:
a pair of pivotally connected first and second frames;
a first axle supported by said first frame;
a second axle supported by said second frame; and
a pivot connecting said first and second frames to each other so that said vehicle turns by relative rotation of said first frame to said second frame around said pivot, said first and second axles being unequally distant from said pivot, wherein, while power is transmitted to said first and second axles, a relative velocity between said first and second

axle steplessly varies corresponding to variation of a distance ratio between said first and second axles from a turning circle center of said vehicle.

13. The four-wheel-drive articulate vehicle as set forth in claim 12, further comprising:

a variable displacement pump disposed on said first frame;

a first hydraulic motor for driving said first axle disposed on said first frame so as to be fluidly connected to said hydraulic pump; and

a second hydraulic motor for driving said second axle disposed on said second frame so as to be fluidly connected to said hydraulic pump, wherein at least one of said first and second hydraulic motors is a variable displacement hydraulic motor, whose volume automatically varies according to variation of a turning angle of said vehicle.

14. The four-wheel-drive articulate vehicle as set forth in claim 13, further comprising:

a first transaxle apparatus with said first axle mounted on said first frame, said first transaxle apparatus being integrally provided with said first hydraulic motor; and

a second transaxle apparatus with said second axle mounted on said second frame, said second transaxle apparatus being integrally provided with said second hydraulic motor, wherein said hydraulic pump is disposed separately from said first and second transaxle apparatuses and supported by either said first or second frame supporting an engine.

15. The four-wheel-drive articulate vehicle as set forth in claim 14, wherein said first hydraulic motor is disposed in said first transaxle apparatus, wherein said second hydraulic motor is disposed in said second transaxle apparatus, wherein said first transaxle apparatus is similar in shape with said second transaxle apparatus, and wherein said hydraulic pump is supported by either the first or second transaxle apparatuses on said first or second frame supporting said engine.

16. The four-wheel-drive articulate vehicle as set forth in claim 13, further comprising:

a hydraulic series circuit constructed such that hydraulic fluid flows from said

hydraulic pump to one of said first and second hydraulic motors through the other first or second hydraulic motor, and returns to said hydraulic pump.

17. The four-wheel-drive articulate vehicle as set forth in claim 13, wherein said hydraulic pump is integrally connected to one of said first and second motors.

18. The four-wheel-drive articulate vehicle as set forth in claim 13, wherein said hydraulic pump is a common fluid source for said first and second hydraulic motors.

19. The four-wheel-drive articulate vehicle as set forth in claim 13, further comprising:

a pair of axles serving as at least one of said first and second axles; and

a mechanical differential gear unit for differentially connecting said pair of axles to each other, wherein output of said corresponding hydraulic motor is transmitted to said mechanical differential gear unit.

20. The four-wheel-drive articulate vehicle as set forth in claim 13, further comprising:

dual axles serving as either said first axle or said second axle; and

dual hydraulic motor serving as said first or second hydraulic motor for driving said respective dual axles, wherein said dual hydraulic motors are fluidly connected to each other so as to differentially connecting said dual axles to each other.

21. The four-wheel-drive articulate vehicle as set forth in claim 12, further comprising:

a hydraulic fluid tube for connecting said hydraulic pump and said first and second hydraulic motors, wherein said hydraulic fluid tube partly includes a metallic tube.